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10/627,692	07/28/2003	Mitsuru Yoneyama	2003_0891A	3210

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EXAMINER

WALBERG, TERESA J

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/627,692

Applicant(s)

YONEYAMA ET AL.

Examiner

Teresa J. Walberg

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-14 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-14 and 22-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liviken et al (WO 94/09684) in view of Matsunaga et al (JP 3-145089).

Liviken et al disclose a heated seat assembly (see Fig. 7) comprising: a seat surface material (7); a heating element (2) fixed inside said seat surface material (7), said heating element (2) comprising: a base material (3 or 4) made of a hot melt material (see page 4, lines 14-18); and a linear heater (2) disposed on said base material (3 or 4); and a resin (9) filled inside of said seat surface material (7) and covering said heating element (2).

Liviken et al do not disclose the heater being sewn to the base material.

Matsunaga et al disclose sewing a wire to a base material for use in a car seat heater.

It would have been obvious in view of Matsunaga et al to secure the wire of Liviken et al in place by sewing, in order to securely hold the heater in place while still maintaining a flexible surface.

With respect to claim 3, Liviken et al disclose the base material is in a form of a sheet (4 in Fig. 1) or a mesh structure (8 in Fig. 3).

With respect to claim 4, Liviken et al disclose the base material is made of a fibrous material (8 in Fig. 3).

With respect to claim 6, Liviken et al disclose the linear heater (2) has a hot melt layer (4) formed around an outer periphery of a heating element (see Fig. 1).

3. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liviken et al in view of Matsunaga et al (JP 3-145089) as applied to claims 1, 3, 4, and 6 above and further in view of Gessler et al (2004/0074589).

Liviken et al in view of Matsunaga et al disclose the claimed structure with the exception of the heater being secured by sewing with a hot melt material.

Gessler et al disclose securing a fiber to a substrate by sewing with hot melt material.

It would have been obvious in view of Gessler et al to use sewing with hot melt material to secure the heater of Liviken et al in view of Matsunaga et al, the motivation being to better secure the heater in place.

4. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liviken et al (WO 94/09684) in view of Matsunaga et al (JP 3-145089) as applied to claims 1, 3, 4, and 6 above and further in view of Rowland (2,732,479).

Liviken et al in view of Matsunaga et al disclose the claimed structure with the exception of the heater having a braided structure with a plurality of

conductors and threads and the number of threads being not less than the number of conductors.

Rowland discloses heater having a braided structure with a plurality of conductors and threads and the number of threads being not less than the number of conductors. See Fig. 4 and col. 1, lines 53-61.

It would have been obvious in view of Rowland to use a heater having a braided structure with a plurality of conductors and threads and the number of threads being not less than the number of conductors as the heater of Liviken et al in view of Matsunaga et al, the motivation being to make the heater more flexible and less likely to break.

With respect to claim 10, Liviken et al disclose the conductor having an insulating coating layer. See page 3, line 34.

5. Claims 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liviken et al (WO 94/09684) in view of Matsunaga et al (JP 3-145089) and Rowland (2,732,479) as applied to claims 7-10 above, and further in view of Peeri (4,063,069).

Liviken et al in view of Matsunaga et al and Rowland disclose the claimed structure with the exception of the insulating coating layer being a lubricant, the thread being lubricant, and thread comprising one of fibers coated with highly lubricant material and highly lubricant fibers.

Peeri discloses a heating element having coating layers of polytetrafluoroethylene, which is considered to be a lubricant.

It would have been obvious in view of Peeri to use lubricant coatings in the heater of Liviken et al in view of Matsunaga et al and Rowland, the motivation being to make the heater stronger and less likely to be damaged.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liviken et al (WO 94/09684) in view of Matsunaga et al (JP 3-145089) and Rowland (2,732,479) as applied to claims 7-10 above, and further in view of Moss (6,311,637).

Liviken et al in view of Matsunaga et al and Rowland disclose the claimed structure with the exception of the insulating coating layer being colored for indication.

Moss discloses that it is conventional in the art for an insulating coating layer to be colored for indication. See col. 4, lines 5-17.

It would have been obvious in view of Moss to use color coded insulation layers in the heater of Liviken et al in view of Matsunaga et al and Rowland, the motivation being to make the heater easier to replace when needed.

7. Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liviken et al (WO 94/09684) in view of Matsunaga et al (JP 3-145089) and further in view of Kayama (JP 03-015412).

Liviken et al disclose a method of manufacturing a heated seat assembly (see Fig. 7), comprising the steps of: providing a seat surface material (7), preparing a heating element (2) by disposing said heating element on a base material (8 in Fig. 3) and fixing said heating element (2) inside said seat surface material (7) (see Fig. 7).

Liviken et al do not disclose sewing the heater to the base material or filling resin inside the seat surface.

Matsunaga et al disclose sewing a wire to a base material for use in a car seat heater.

It would have been obvious in view of Matsunaga et al to secure the wire of Liviken et al in place by sewing in order to securely hold the heater in place while still maintaining a flexible surface.

Kayama discloses filling urethane foam resin inside a seat surface, the filling being foaming injection molding (see abstract).

It would have been obvious in view of Kayama to use a urethane resin foam and to form the foam by injection molding in the heated seat of Liviken et al in view of Matsunaga et al, the motivation being to hold the parts in place and make the car seat comfortable to sit on.

Note that the thermoplastic layers of Liviken et al are disclosed as being made of materials that would inherently melt at a molding temperature of the filling resin.



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8. Applicant's arguments with respect to claims 1, 3-14, and 22-28 have been considered but are moot in view of the new ground(s) of rejection.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Motoyoshi et al, Kitamura, Matsunaga (JP2-129886), and Wada (JP 2-227983) are cited to show sewn heating elements.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 703-308-1327. After November 22, 2004, the examiner's telephone number will change to 571-272-4790. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Teresa J. Walberg

Primary Examiner

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tjw